

## **REMARKS**

In the Official Action mailed on **5 February 2007**, the Examiner reviewed claims 1-7, 9-11, 13-21, 23-25, 27-35, 37-39, 41, and 42. Claims 15-21, 23-25, and 27-28 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Claims 1-3, 9-11, 13, 15-17, 23-25, 27, 29-31, 37-39, and 41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Michael ("*High Performance Dynamic Lock-Free Hash Tables and List-Based Sets*", hereinafter "Michael") in view of applicants' admitted prior art (hereinafter "AAPA"), and further in view of Schimmel (USPN 5,960,434 hereinafter "Schimmel"). Claims 4-5, 18-19, and 32-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Michael in view AAPA, in view of Schimmel, and further in view of Rakity et al (USPN 5,671,446, hereinafter "Rakity"). Claims 6, 20, and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Michael, in view of AAPA, Schimmel and further in view of Hills (USPN 6,654,773, hereinafter "Hills"). Claims 7, 21, and 35 were rejected under 35 U.S.C §103(a) as being unpatentable over Michael, in view of AAPA, in view of Schimmel, and further in view of Blaker et al (USPub 2001/0042204, hereinafter "Blaker"). Claims 14, 28, and 42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Michael, in view of AAPA, in view of Schimmel, and further in view of Douceur (USPN 6,067,547, hereinafter "Douceur").

### **Rejections under 35 U.S.C. §101**

Examiner rejected claims 15-21, 23-25, and 27-28 as being directed to non-statutory subject matter in the claims as a result of paragraph [0041]. Accordingly, Applicant has amended claim 15 to disavow the inclusion of computer instruction signals embodied in a transmission medium. As amended, claim 15 is now directed to statutory subject matter. Claims 16-21, 23-25, and 27-

28, which depend on claim 15, are similarly now directed to statutory subject matter.

Hence, Applicant respectfully submits that independent claim 15 as presently amended is in condition for allowance. Applicant also submits that claims 16-21, 23-25, and 27-28, which depend upon claim 15, are for the same reason, in condition for allowance.

### **Rejections under 35 U.S.C. §103(a)**

Examiner rejected claims 1-3, 9-11, 13, 15-17, 23-25, 27, 29-31, 37-39, and 41 as being unpatentable over Michael in view of AAPA and further in view of Schimmel.

In Examiner's response to arguments (paragraphs 82 and 83), Examiner did not find the Applicant's arguments filed 9/18/2006 to be persuasive. Applicant stated that the present invention directly copies the old buckets into the top half of the new bucket array (see Fig. 2C and paragraphs [0043]-[0049] of the instant application) whereas the combined system of Michael, AAPA, and Schimmel discloses adding a pointer to the new buckets which point to the old buckets and then re-hashing the data records over time. Examiner disagreed and stated that Schimmel does directly copy such buckets.

To clarify, the term "directly copies" refers to a *single* pointer operation that *implicitly* transfers *multiple* data records from an old bucket to a new bucket through a bit-based splitting scheme in an ordered list of data records. This is described in paragraph [0071] of the instant application. Particularly, paragraph [0072] describes a variation of this for table shrinking; paragraphs [0073] – [0080] describe other variations of this method.

In contrast, the combined system of Michael, AAPA, and Schimmel *explicitly* re-hashes *each* data record as it is accessed *over time*. For example, see column 4, lines 19-23 of Schimmel. There is nothing within Michael, AAPA, or

Schimmel, either separately or in concert, which suggests *implicit* re-hashing of *multiple* data records with a *single* pointer operation.


The benefit of the present invention over the combined system of Michael, AAPA, and Schimmel is that it is more efficient because it implicitly transfers *multiple* data records with a *single* operation.

Accordingly, Applicant has amended independent claims 1, 15, and 29 to further clarify this distinction. These amendments find support in paragraphs [0071] – [0080] of the instant application. No new matter is added. Applicant respectfully submits that independent claims 1, 15, and 29 as currently amended are in condition for allowance. Applicant also submits that the remaining claims, which depend upon these claims, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

**CONCLUSION**

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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